

## C l a i m s

1. A method of detecting a leak in reciprocating machinery (1), comprising at least two pistons (2, 2'), characterized in that the volume flow at least out of the reciprocating machinery (1) is monitored and analysed, e.g. by means of Fourier analysis, in order to make it possible to detect a flow component, where the flow component has a frequency that differs from the fundamental frequency of the reciprocating machinery, the fundamental frequency of the reciprocating machinery being constituted by the rotational frequency of the reciprocating machinery multiplied by the number of pistons (2, 2') in the reciprocating machinery.
2. A method in accordance with Claim 1, characterized in that the volume flow into and/or out of the reciprocating machinery (1) is monitored, and a flow component is compared with information regarding the shaft/cam angle of the reciprocating machinery (1) in order to allow localisation of the leak associated with the flow frequency component in question, through knowledge of the relationship between the flow frequency component and the shaft/cam angle of the reciprocating pump.
3. A device for detecting a leak in reciprocating machinery (1), comprising at least two pistons (2, 2'), characterized in that the reciprocating machinery (1) is provided with at least one measuring device (14, 16) designed to give a direct

or indirect measurement of a volume flow through the reciprocating machinery (1), the measuring device (14, 16) being connected to a computer that is programmed to separate out flow components having a frequency that differs from the fundamental frequency of the reciprocating machinery.

4. A device in accordance with Claim 3, characterized in that the reciprocating machinery (1) is provided with a rotational angle transmitter (24) connected to the computer (16), which transmitter is designed to measure the shaft/cam angle of the reciprocating machinery (1) in order to allow localisation of the leak associated with the flow frequency component in question, through knowledge of the relationship between the flow frequency component and the shaft/cam angle of the reciprocating pump (1).